

Appl. No. : 09/945,311
Filed : August 30, 2001

AMENDMENTS TO THE CLAIMS

Please cancel Claims 27, 28, 33, and 34 without prejudice or disclaimer.

Please amend Claims 1, 3, 6, 7, 9, 24, 25, and 35 as follows:

1. **(Currently amended)** A ~~wheeled vehicle~~motorcycle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer configured to detect acceleration in at least two distinct directions relative to the frame, the accelerometer being mounted within the outer housing and electrically communicating with the control unit, the accelerometer adapted to output ~~aan~~ output signal that varies with a leaning angle of the ~~vehicle~~motorcycle when turning, said control unit adapted to compare said output signal to a threshold signal ~~indicative of a fall angle~~ range said control unit further adapted to ~~disable~~ decrease the output of said motive member if said output signal ~~exceeds~~ is outside said threshold signal range.
2. **(Original)** The vehicle of Claim 1, wherein said accelerometer is mounted generally horizontally.
3. **(Currently amended)** The vehicle of Claim 1, wherein said output signal varies as a mathematical sine of said leaning angle of the vehicle.
4. **(Original)** A wheeled vehicle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer mounted within the outer housing and electrically communicating with the control unit, the accelerometer adapted to output a signal that varies with the rate of forward deceleration, said control unit adapted to compare said signal to a collision threshold signal and said control unit further adapted to disable said motive member if said signal exceeds said collision threshold signal.
5. **(Original)** The vehicle of Claim 4, wherein said accelerometer is mounted generally horizontally.

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6. **(Currently amended)** The vehicle of Claim 4, wherein said output signal varies as a mathematical sine of said pitching angle of the vehicle caused by rapid deceleration.

7. **(Currently amended)** A wheeled vehicle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame ~~and connected to at least one of the front wheel and~~ delivering a torque to the rear wheel, a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer mounted within the outer housing and electrically communicating with the control unit, the accelerometer adapted to output ~~aan output~~ signal that varies with the rate of forward acceleration, said control unit adapted to compare said output signal to a front wheel lifting acceleration range ~~wheelie threshold~~ signal and said control unit further adapted to reduce the output of said motive member if said output signal exceeds said ~~wheelie threshold~~ front wheel lifting acceleration range signal and when a vehicle is within a predetermined vehicle speed range and when a throttle is within a predetermined throttle position range.

8. **(Original)** The vehicle of Claim 7, wherein said accelerometer is mounted generally horizontally.

9. **(Currently Amended)** The vehicle of Claim 7, wherein said output signal varies as a mathematical sine of said pitching angle of the vehicle caused by rapid deceleration.

10. **(Withdrawn)** A wheeled vehicle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a battery supported by the frame, a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer electrically communicating with the control unit, said control unit evaluating a lean angle of said vehicle based upon output of said accelerometer, said battery being in electrical communication with said accelerometer through a control unit power circuit, an antitheft device being separable from said outer housing and being adapted for selective connection to said control unit and said outer housing, said antitheft device comprising an alarm power circuit that is in electrical communication with an alarm device, a vibration detection circuit and said accelerometer, and said vibration detection circuit detecting

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an output from said accelerometer and activating said alarm device when said output from said accelerometer exceeds a preset level.

11. **(Withdrawn)** The vehicle of Claim 10, wherein said power circuit for said control unit and said alarm power circuit both communicate with said accelerometer and are separated by a diode such that power can flow toward said alarm power circuit from said power circuit for said control unit but power cannot flow toward said power circuit for said control unit from said alarm power circuit.

12. **(Withdrawn)** The vehicle of Claim 10, wherein said accelerometer is mounted within said outer housing of said control unit.

13. **(Original)** A method of controlling operations of a vehicle during an accident, the vehicle having an electronic control unit that comprises a control circuit that is in electrical communication with a semiconductor accelerometer, said electronic control unit adapted to control operation of a motive member and a fuel pump, said method comprising sensing an output signal from said accelerometer, comparing said output signal with a preset threshold level, if said output signal exceeds said preset threshold level then disabling said motive member.

14. **(Original)** The method of Claim 13, wherein said motive member is only disabled if said output signal exceeds said preset threshold level for a preset period of time.

15. **(Original)** The method of Claim 14, wherein said output signal is indicative of a leaning angle of said vehicle.

16. **(Original)** The method of Claim 15, wherein said preset threshold level generally corresponds to a non-recoverable lean angle.

17. **(Original)** The method of Claim 14 further comprising disabling a fuel pump associated with said motive member if said output signal exceeds said preset threshold level for a preset period of time.

18. **(Original)** The method of Claim 14, wherein said output signal is indicative of a deceleration rate of said vehicle.

19. **(Original)** The method of Claim 18, wherein said preset threshold level generally corresponds to a rate of acceleration greater than that encountered during a panic braking operation.

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20. **(Original)** The method of Claim 13, wherein said motive member is disabled by interrupting ignition.

21. **(Original)** The method of Claim 13, wherein said motive member is disabled by interrupting fuel injection.

22. **(Original)** The method of Claim 13 further comprising placing the vehicle in a neutral upright position, obtaining a correction reading from said accelerometer, storing said correction reading and adjusting said output signal with said correction reading.

23. **(Original)** The method of Claim 22, wherein obtaining said correction reading is performed after placing said electronic control unit into a test mode.

24. **(Currently amended)** The method of Claim 22, wherein said correction reading is written to an electrically erasable programmable read-only memory (EEPROM).

25. **(Currently amended)** A method of controlling operations of a vehicle during acceleration, the vehicle having an electronic control unit that comprises a control circuit that is in electrical communication with a semiconductor accelerometer, said electronic control unit adapted to control operation of a motive member, said method comprising sensing an output signal from said accelerometer, sensing a throttle position, and sensing a vehicle speed, comparing said accelerometer output signal with a preset threshold level, comparing said sensed throttle position to a preset throttle angle, comparing said vehicle speed to a threshold speed, ~~if said output signal exceeds said preset threshold level then~~ decreasing an output of said motive member only if said output signal from said accelerometer exceeds said preset threshold level, said sensed throttle position is greater than said preset throttle angle, and said sensed vehicle speed is less than said threshold speed.

26. **(Original)** The method of Claim 25 further comprising decreasing said output only if said output signal exceeds said preset threshold level for a preset period of time.

27. **(Cancelled)**

28. **(Cancelled)**

29. **(Original)** The method of Claim 25, wherein said motive member is an internal combustion engine and decreasing an output of said motive member comprises selectively interrupting ignition of said engine.

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30. **(Original)** The method of Claim 25, wherein said motive member is an internal combustion engine and decreasing an output of said motive member comprises selectively interrupting fuel injection of said engine.

31. **(Original)** The method of Claim 25, wherein decreasing an output of said motive member comprises stepping the output down over a period of time.

32. **(Original)** The method of Claim 31, wherein said output is stepped down based at least in part upon a sensed vehicle speed.

33. **(Cancelled)**

34. **(Cancelled)**

35. **(Currently amended)** A method of controlling operations of a vehicle during acceleration, the vehicle having an electronic control unit that comprises a control circuit that is in electrical communication with a semiconductor accelerometer, said electronic control unit adapted to control operation of a motive member, said method comprising sensing an output signal from said accelerometer, comparing said output signal with a preset threshold level, if said output signal exceeds said preset threshold level then decreasing an output of said motive member, returning said output to a normal output level after said output has been decreased, returning said output to normal over a period of time, or returning said output to normal in a series of increments.

Please add new Claim 36 as follows:

36. (New) The vehicle of Claim 1, wherein said control unit is adapted to decrease the output of said motive member only when the vehicle is within a predetermined vehicle speed range, and when a throttle is within a predetermined throttle position range.